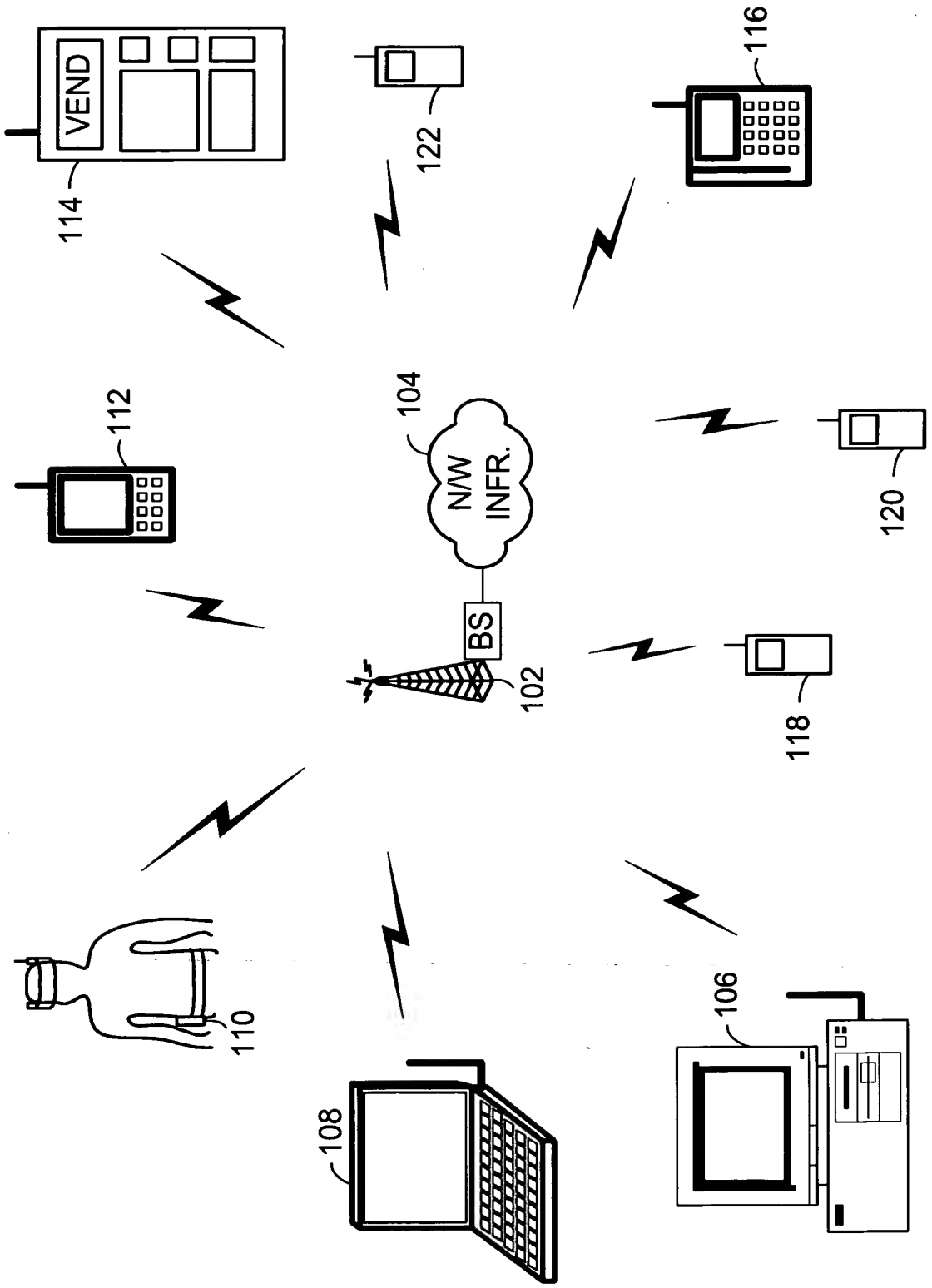

FIG. 1

TOTTO' D9949260

	R/32	R/16	R/8	R/4	R/2	R
RATES (KBPS)	76.8	153.6	307.2	614.4	1228.8	2457.6

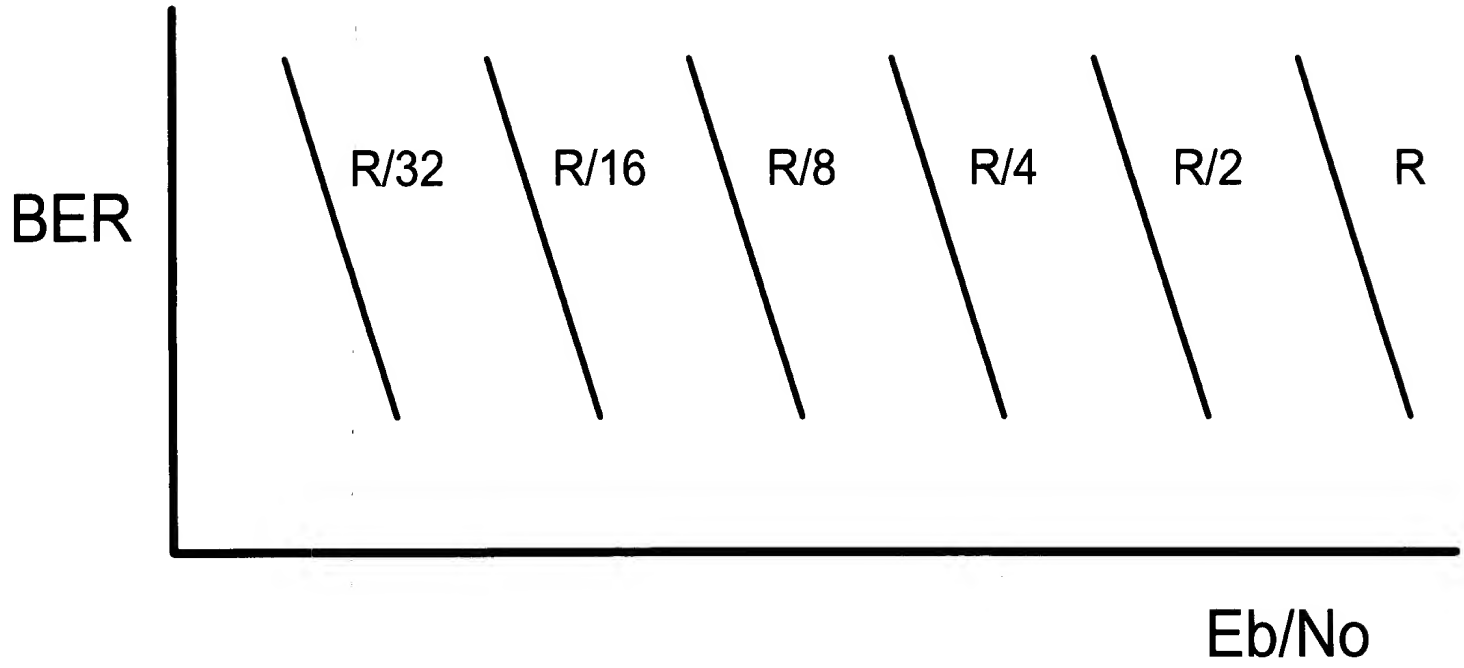

FIG. 2

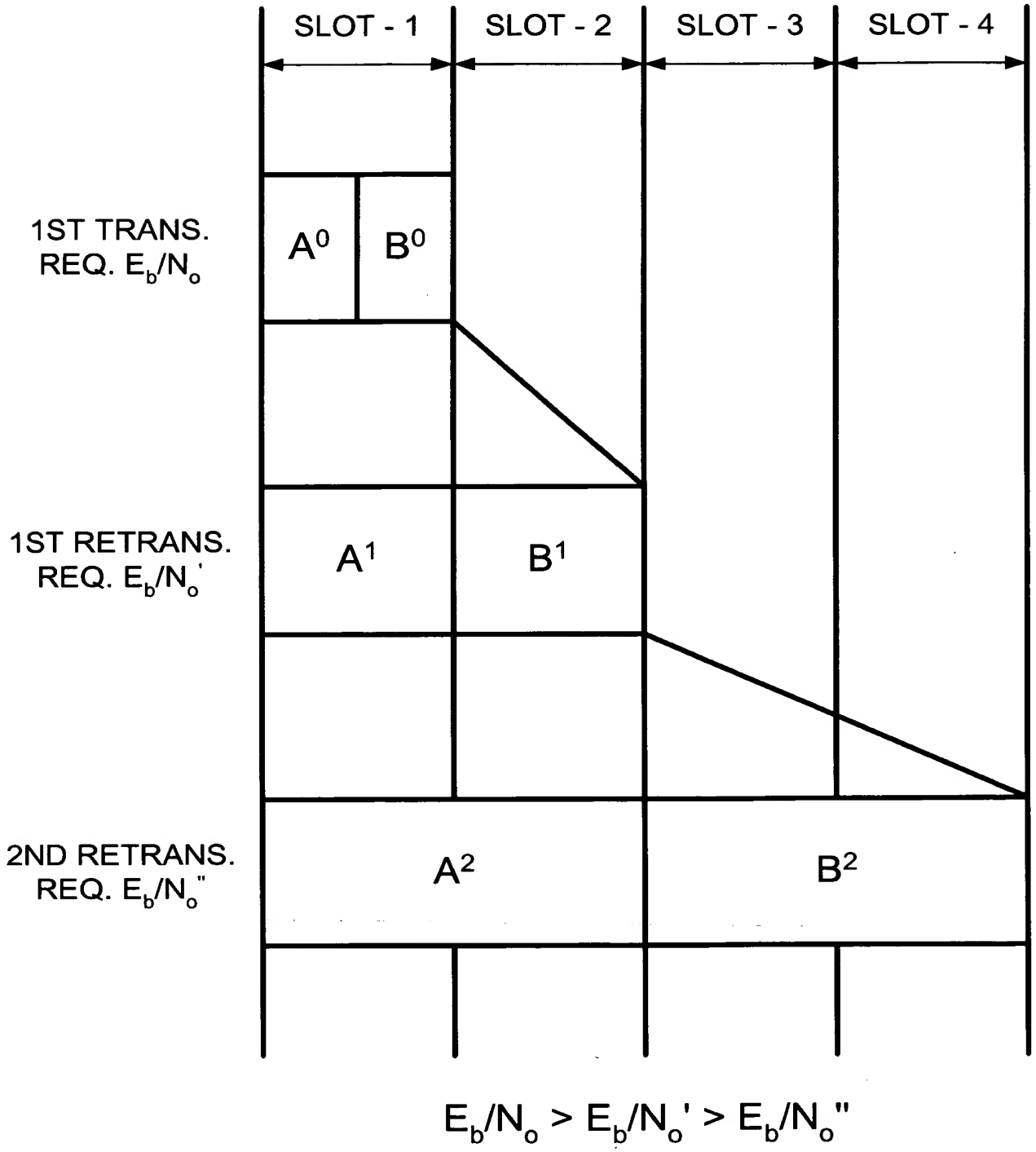
SLOT - 1
SLOT - 2
SLOT - 3
SLOT - 4
1ST TRANS. REQ. E_b/N_o
A^0
B^0
1ST RETRANS. REQ. E_b/N_o'
A^1
B^1
2ND RETRANS. REQ. E_b/N_o''
A^2
B^2
$E_b/N_o > E_b/N_o' > E_b/N_o''$

FIG. 3

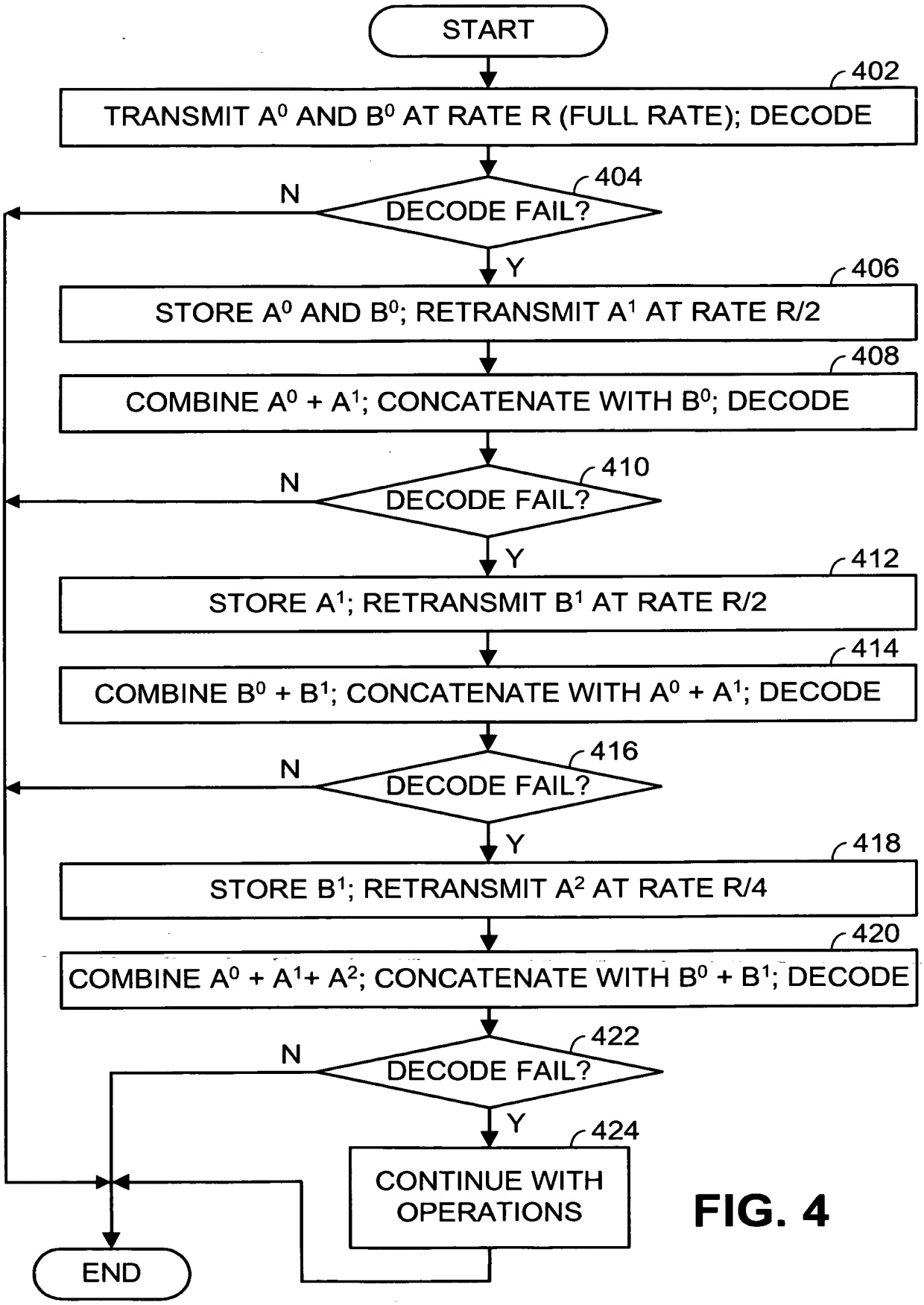
START
402
TRANSMIT A0 AND B0 AT RATE R (FULL RATE); DECODE
404
N
DECODE FAIL?
Y
406
STORE A0 AND B0; RETRANSMIT A1 AT RATE R/2
408
COMBINE A0 + A1; CONCATENATE WITH B0; DECODE
410
N
DECODE FAIL?
Y
412
STORE A1; RETRANSMIT B1 AT RATE R/2
414
COMBINE B0 + B1; CONCATENATE WITH A0 + A1; DECODE
416
N
DECODE FAIL?
Y
418
STORE B1; RETRANSMIT A2 AT RATE R/4
420
COMBINE A0 + A1+ A2; CONCATENATE WITH B0 + B1; DECODE
422
N
DECODE FAIL?
Y
424
CONTINUE WITH OPERATIONS
END

FIG. 4

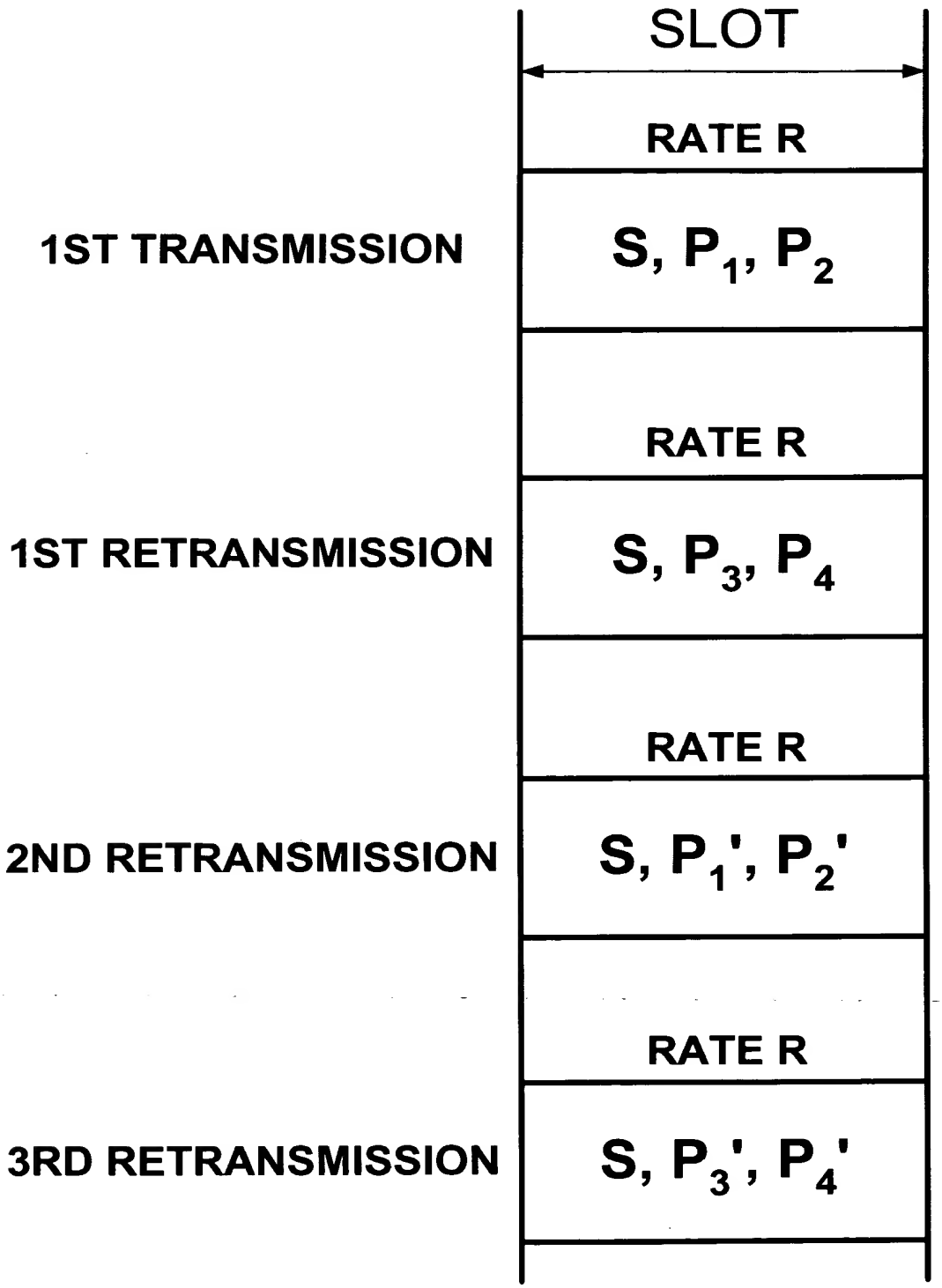
SLOT
RATE R
1ST TRANSMISSION
S, P1, P2
RATE R
1ST RETRANSMISSION
S, P3, P4
RATE R
2ND RETRANSMISSION
S, P1', P2'
RATE R
3RD RETRANSMISSION
S, P3', P4'

FIG. 5

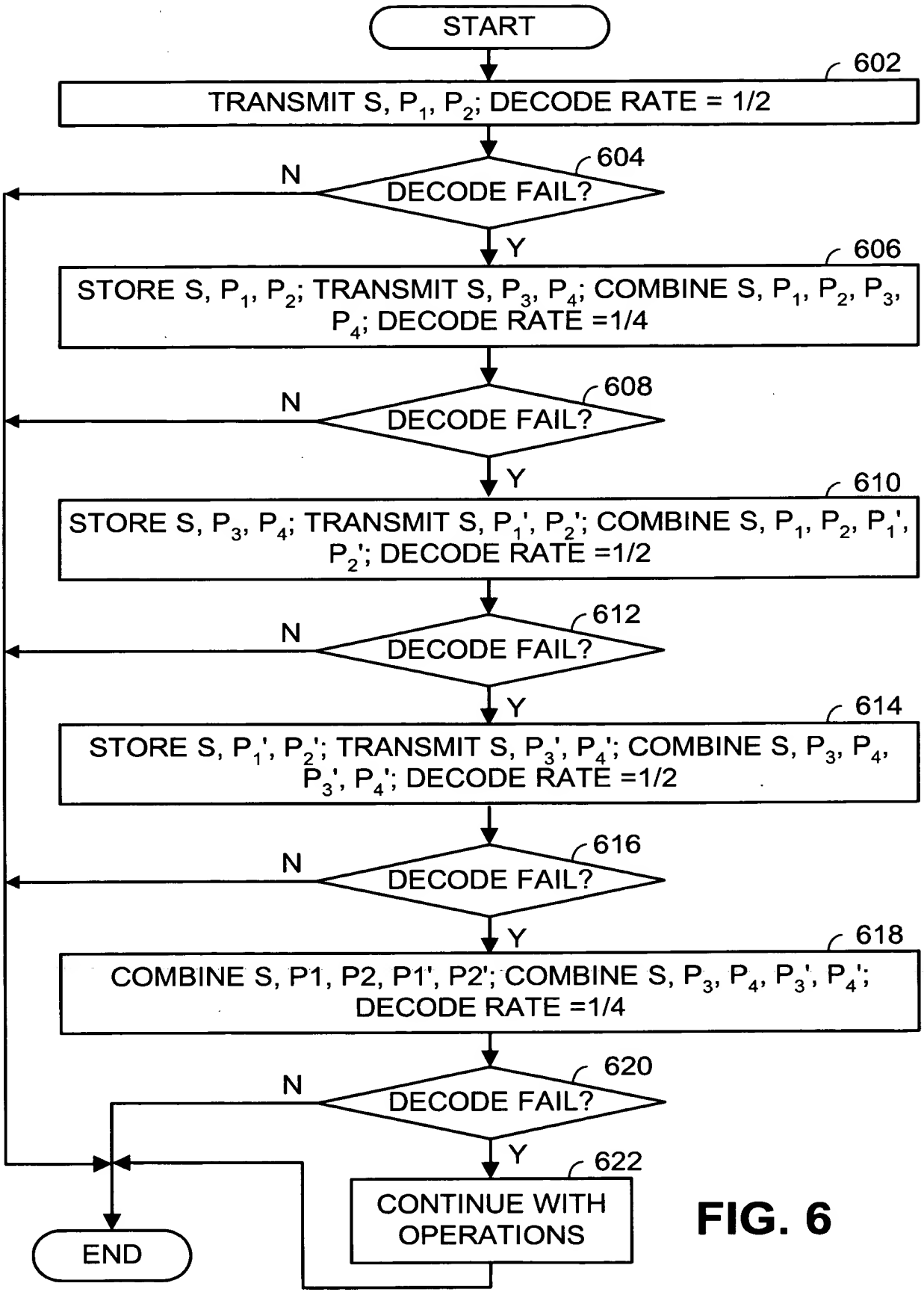
START
602
TRANSMIT S, P1, P2; DECODE RATE = 1/2
604
N
DECODE FAIL?
Y
606
STORE S, P1, P2; TRANSMIT S, P3, P4; COMBINE S, P1, P2, P3, P4; DECODE RATE =1/4
608
N
DECODE FAIL?
Y
610
STORE S, P3, P4; TRANSMIT S, P1', P2'; COMBINE S, P1, P2, P1', P2'; DECODE RATE =1/2
612
N
DECODE FAIL?
Y
614
STORE S, P1', P2'; TRANSMIT S, P3', P4'; COMBINE S, P3, P4, P3', P4'; DECODE RATE =1/2
616
N
DECODE FAIL?
Y
618
COMBINE S, P1, P2, P1', P2'; COMBINE S, P3, P4, P3', P4'; DECODE RATE =1/4
620
N
DECODE FAIL?
Y
622
CONTINUE WITH OPERATIONS
END

FIG. 6

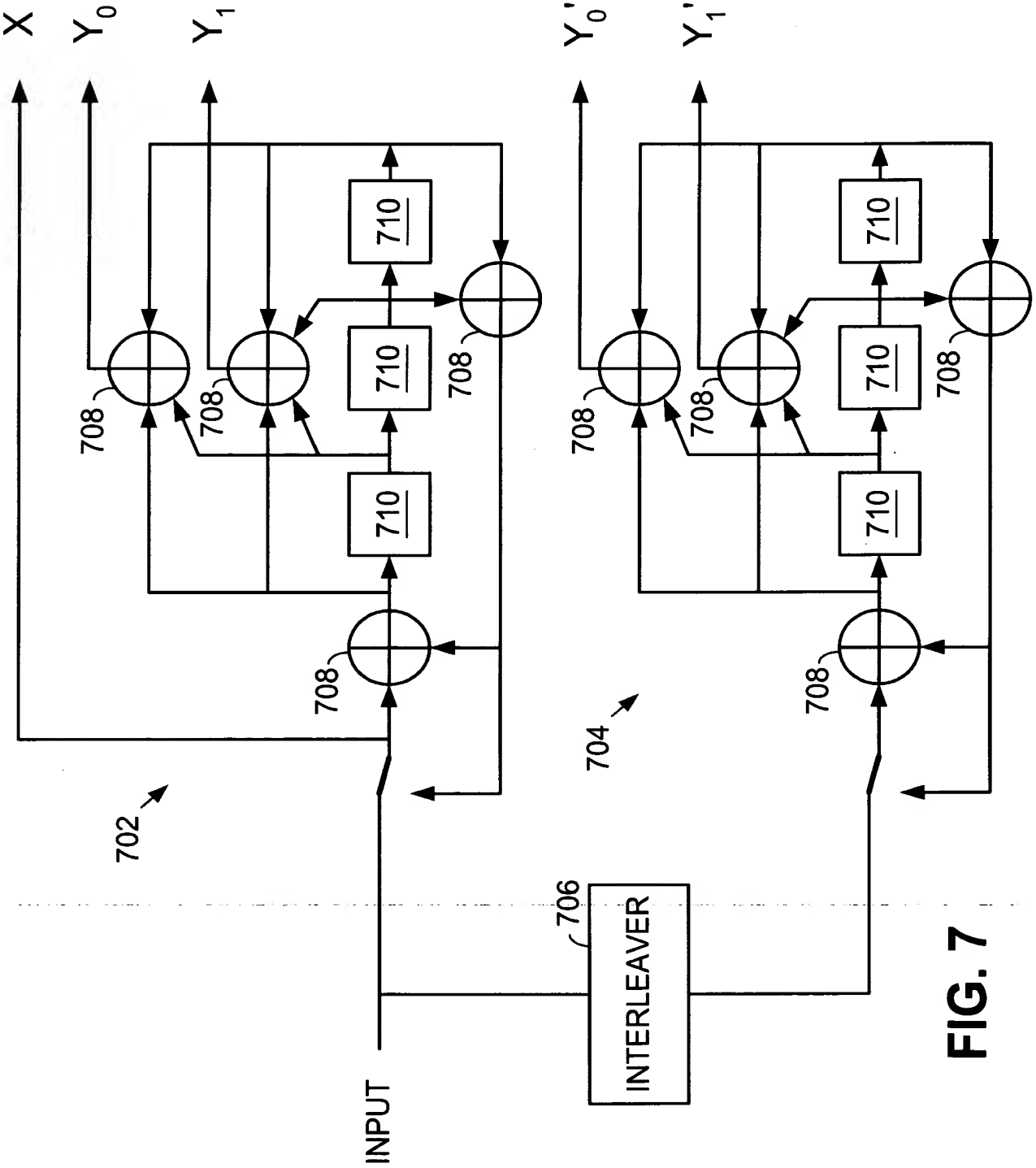

FIG. 7

		1ST TRANS.	1ST RETRANS.	2ND RETRANS.	3RD RETRANS.
S	X	1, 1	1, 1	1, 1	1, 1
P_1	Y_0	1, 0	0, 0	1, 0	0, 0
P_3	Y_1	0, 0	1, 0	0, 0	1, 0
P_2	Y_0'	0, 1	0, 0	0, 1	0, 0
P_4	Y1'	0, 0	0, 1	0, 0	0, 1

FIG. 8

	1ST TRANS.	1ST RETRANS.	2ND RETRANS.	3RD RETRANS.	4TH RETRANS.
X	1, 1, 1, 1	1, 1, 1, 1	1, 1, 1, 1	1, 1, 1, 1	1, 1, 1, 1
Y_0	0, 0, 0, 0	0, 0, 0, 0	0, 0, 0, 0	0, 0, 0, 0	0, 0, 0, 0
Y_1	0, 0, 0, 0	0, 0, 1, 0	0, 1, 1, 0	1, 1, 1, 0	1, 1, 1, 1
Y_0'	0, 0, 0, 0	0, 0, 0, 0	0, 0, 0, 0	0, 0, 0, 0	0, 0, 0, 0
Y1'	0, 0, 0, 0	0, 0, 1, 0	0, 1, 1, 0	1, 1, 1, 0	1, 1, 1, 1

FIG. 11

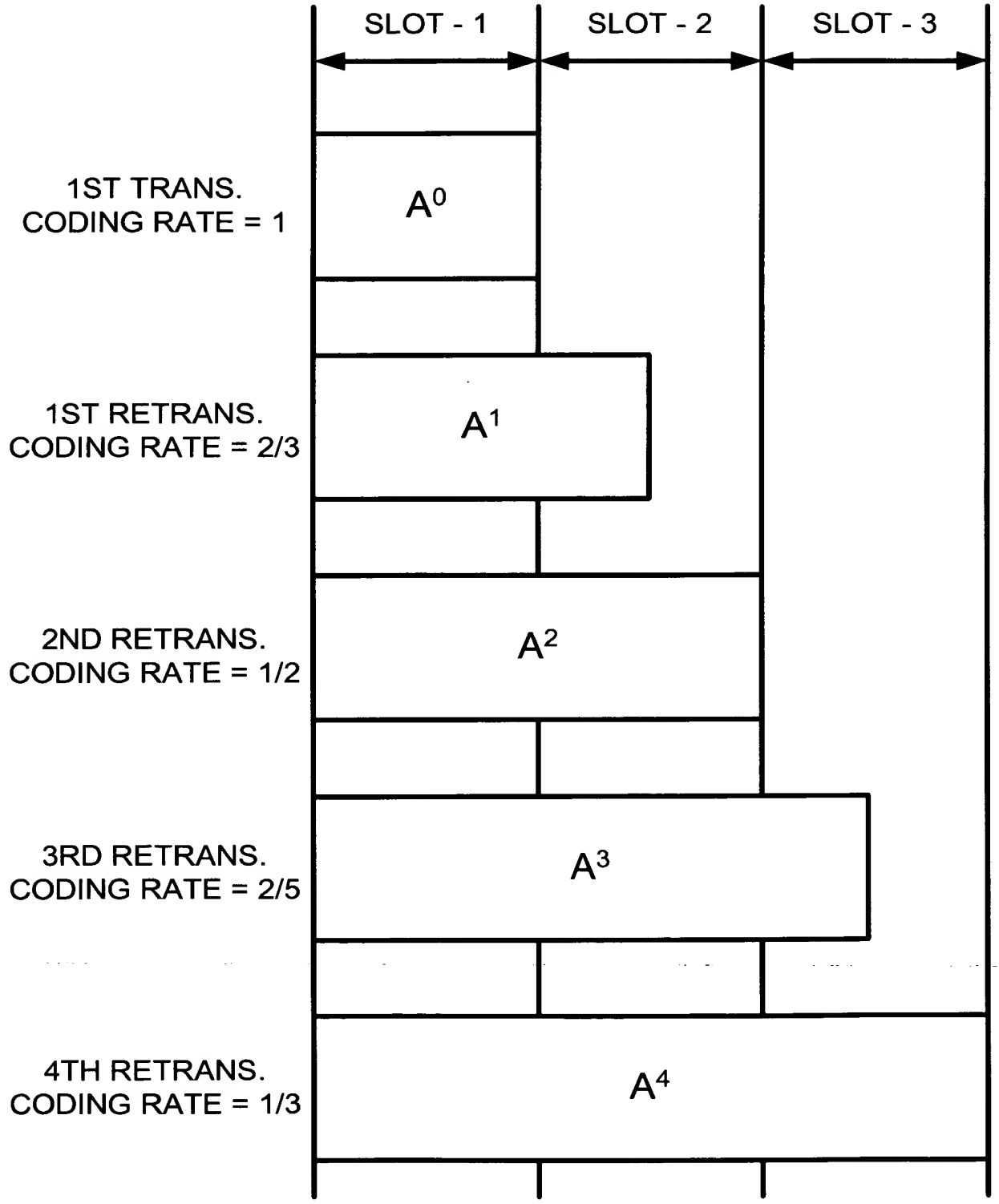
SLOT - 1
SLOT - 2
SLOT - 3
1ST TRANS.
CODING RATE = 1
A0
1ST RETRANS.
CODING RATE = 2/3
A1
2ND RETRANS.
CODING RATE = 1/2
A2
3RD RETRANS.
CODING RATE = 2/5
A3
4TH RETRANS.
CODING RATE = 1/3
A4

FIG. 9

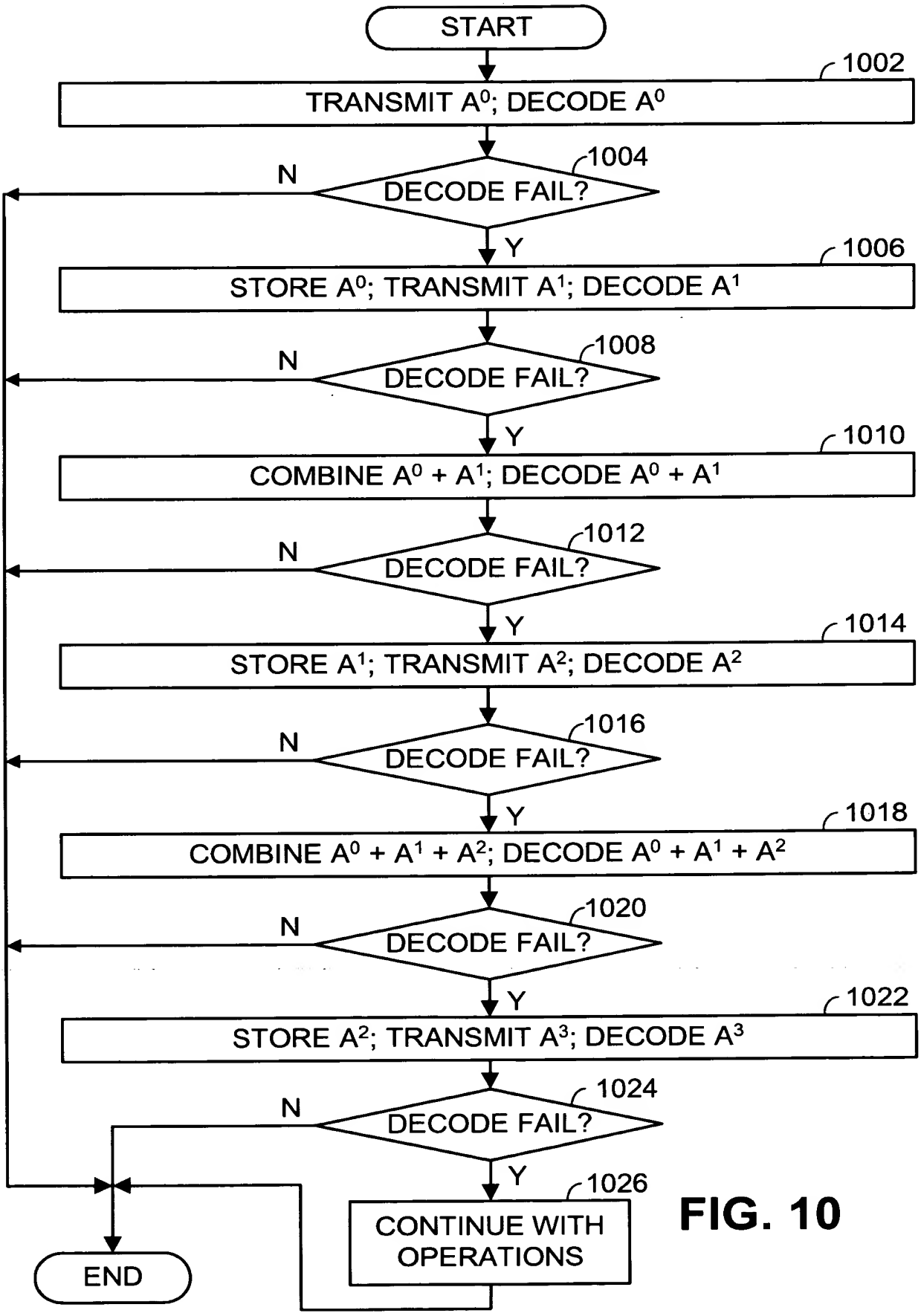

FIG. 10

Docket No. 95-1-0602

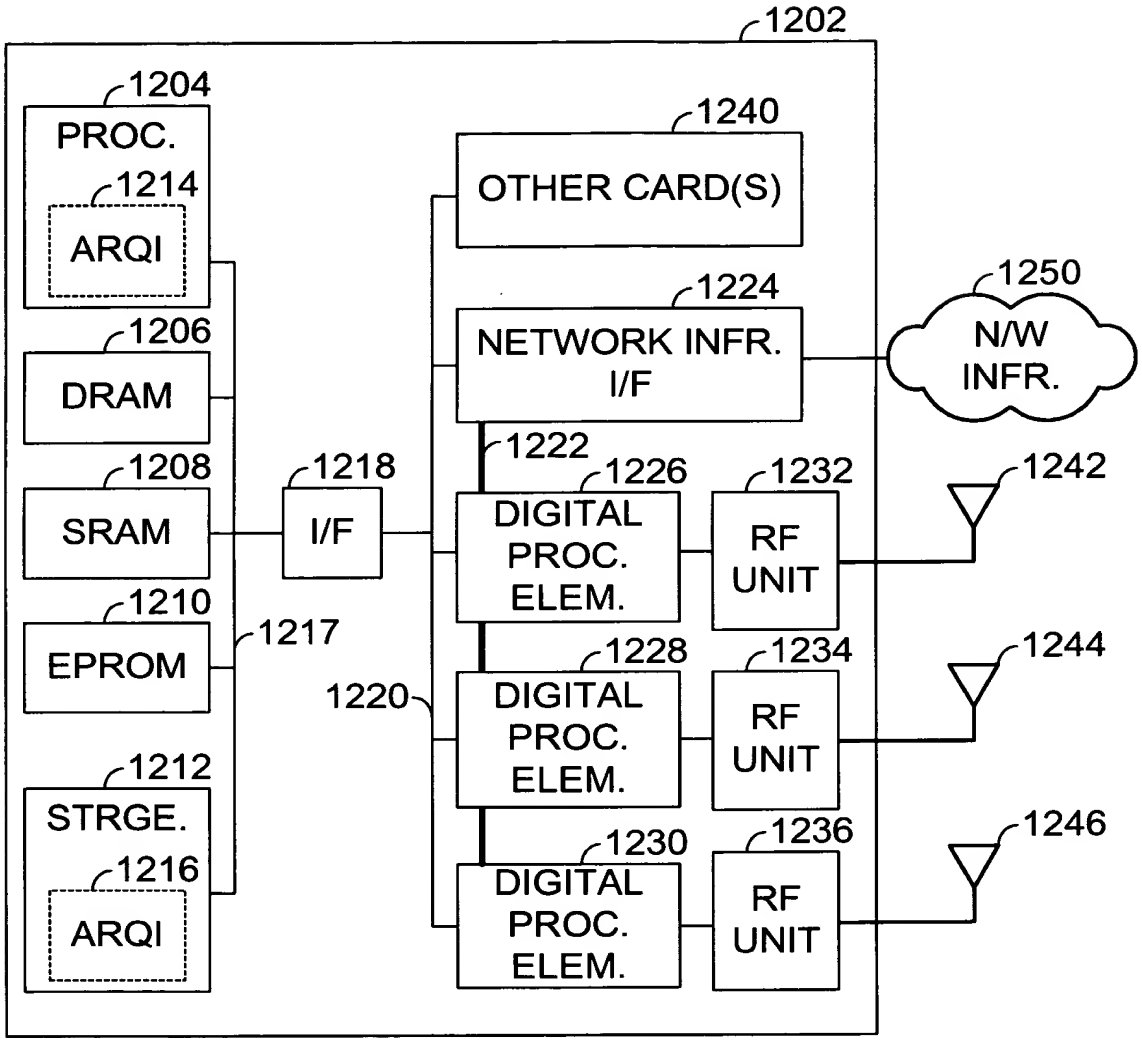
1202
1204
PROC.
1214
ARQI
1206
DRAM
1208
SRAM
1210
EPROM
1212
STRGE.
1216
ARQI
1217
1218
I/F
1220
1222
1240
OTHER CARD(S)
1224
NETWORK INFR. I/F
1250
N/W INFR.
1226
DIGITAL PROC. ELEM.
1228
DIGITAL PROC. ELEM.
1230
DIGITAL PROC. ELEM.
1232
RF UNIT
1234
RF UNIT
1236
RF UNIT
1242
1244
1246

FIG. 12

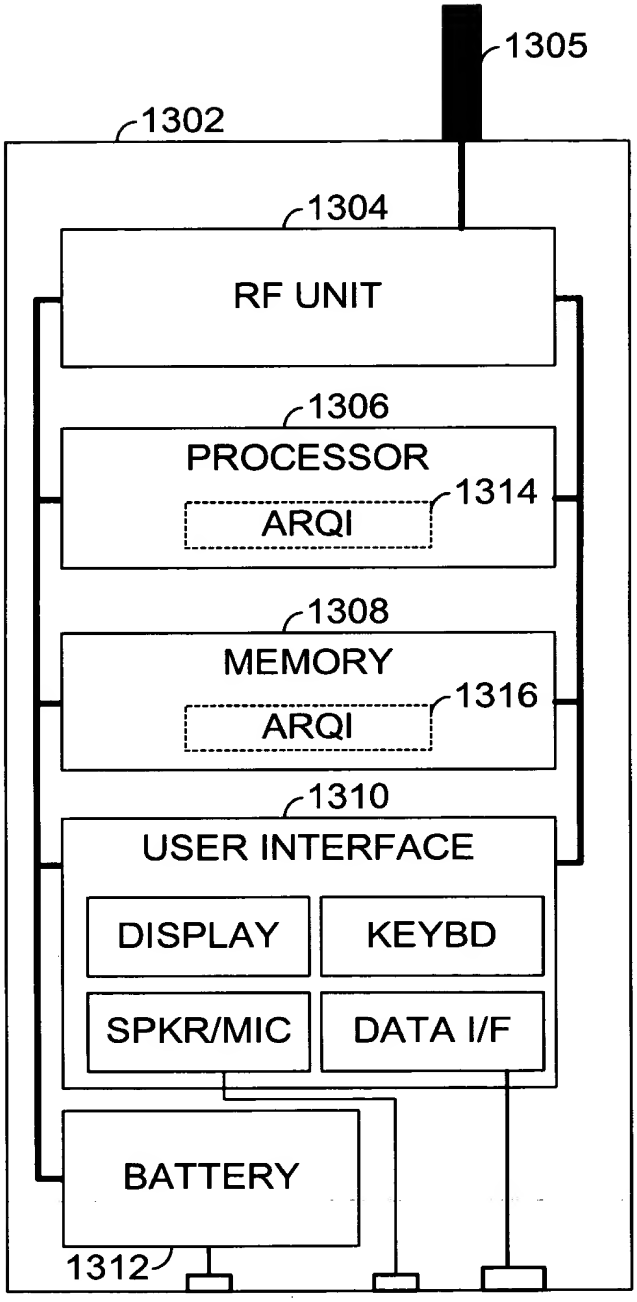
1305
1302
1304
RF UNIT
1306
PROCESSOR
1314
ARQI
1308
MEMORY
1316
ARQI
1310
USER INTERFACE
DISPLAY
KEYBD
SPKR/MIC
DATA I/F
BATTERY
1312

FIG. 13